## Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) A compound of the formula:

or pharmaceutically acceptable salts or esters thereof; wherein X is -(C=O)-, -(C=S)-,  $-S(O)_{nl}-$  or -(C=N-Z), wherein Z [[=]] is  $R_{20}$  or  $-OR_{20}$ , and wherein nl is 0, l or 2; T is absent,  $NR_{20}$ , or 0, with the provise that when X is -(C=O), T is not absent;

wherein each  $R_{20}$  is independently H, -CN,  $C_{1-6}$   $C_{1}$ - $C_{6}$  alkyl, or  $C_{2}$ - $C_{6}$  alkenyl,  $C_{1-6}$   $C_{1}$ - $C_{6}$  haloalkyl or  $C_{4-7}$   $C_{4}$ - $C_{7}$  cycloalkyl, with the proviso that when Z is  $R_{20}$  or -OR<sub>20</sub>,  $R_{20}$  is not -CN; wherein  $R_{1}$  is -(CH<sub>2</sub>)<sub>1-2</sub>-S(O)<sub>0-2</sub>-( $C_{1}$ - $C_{6}$  alkyl), or

 $C_1-C_{10}$  alkyl optionally substituted with 1, 2, or 3 groups independently selected from halogen, -OH, =O, -SH, -C=N, -CF<sub>3</sub>, -C<sub>1</sub>-C<sub>3</sub> alkoxy, amino, mono or dialkylamino, -N(R)C(O)R'-, -OC(=O)-amino and -OC(=O)-mono- or dialkylamino, or

 $C_2$ - $C_6$  alkenyl or  $C_2$ - $C_6$  alkynyl, each of which is optionally substituted with 1, 2, or 3 groups independently

selected from halogen, -OH, -SH, -C=N, -CF<sub>3</sub>, C<sub>1</sub>-C<sub>3</sub>
alkoxy, amino, and mono- or dialkylamino, or
aryl, heteroaryl, heterocyclyl, -C<sub>1</sub>-C<sub>6</sub> alkyl-aryl, -C<sub>1</sub>-C<sub>6</sub>
alkyl-heteroaryl, or -C<sub>1</sub>-C<sub>6</sub> alkyl-heterocyclyl, where
the ring portions of each are optionally substituted
with 1, 2, 3, or 4 groups independently selected from
halogen, -OH, -SH, -C=N, -NR<sub>105</sub>R'<sub>105</sub>, -CO<sub>2</sub>R, -N(R)COR',
er -N(R)SO<sub>2</sub>R', -C(=O)-(C<sub>1</sub>-C<sub>4</sub>) alkyl, -SO<sub>2</sub>-amino, -SO<sub>2</sub>mono or dialkylamino, -C(=O)-amino, -C(=O)-mono or
dialkylamino, -SO<sub>2</sub>-(C<sub>1</sub>-C<sub>4</sub>) alkyl, or
C<sub>1</sub>-C<sub>6</sub> alkoxy optionally substituted with 1, 2, or 3
groups which are independently selected from

halogens, or

- $C_3-C_7$  cycloalkyl optionally substituted with 1, 2, or 3 groups independently selected from halogen, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1-C_3$  alkoxy, amino, - $C_1-C_6$  alkyl and mono- or dialkylamino, or
- $C_1-C_{10}$  alkyl optionally substituted with 1, 2, or 3 groups independently selected from halogen, -OH, -SH, -C $\equiv$ N, -CF $_3$ , -C $_1$ -C $_3$  alkoxy, amino, mono- or dialkylamino and -C $_1$ -C $_3$  alkyl, or
- $C_2-C_{10}$  alkenyl or  $C_2-C_{10}$  alkynyl each of which is optionally substituted with 1, 2, or 3 groups

independently selected from halogen, -OH, -SH,  $-C\equiv N$ ,  $-CF_3$ ,  $C_1-C_3$  alkoxy, amino,  $C_1-C_6$  alkyl and mono- or dialkylamino; and the heterocyclyl group is optionally further substituted with oxo;

R and R' independently are hydrogen,  $C_1-C_{10}$  alkyl,  $C_1-C_{10}$  alkylaryl or  $C_1-C_{10}$  alkylheteroaryl; wherein Rc is

(I)  $-[-(CH_2)_{(0-8)}-(CH)_{(alkyl_1)}_{(alkyl_2)}]$ , where alkyl<sub>1</sub> and alkyl<sub>2</sub> are stratight straight or branched  $C_{2-10}_{(alkyl_2)}$  alkanyl, alkenyl or alkynyl, and wherein alkyl<sub>1</sub> and alkyl<sub>2</sub> attach to the same or different methylene carbon with the remaining open methylene valences occupied by hydrogen, thus forming a branched alkyl chain having between 8 and 20 carbon atoms in total;

the alkyl groups, alkyl<sub>1</sub> and alkyl<sub>2</sub> being optionally substituted with one, two or three substituents selected from the group consisting of  $C_1$ - $C_3$  alkyl, halogen, -OH, -SH, -C=N, -CF<sub>3</sub>,  $C_1$ - $C_3$  alkoxy, -O-phenyl, -C(0) $C_1$ - $C_3$  alkyl, -NR<sub>1-a</sub>R<sub>1-b</sub> where R<sub>1-a</sub> and R<sub>1-b</sub> are -H or  $C_1$ - $C_6$  alkyl, -OC=O NR<sub>1-a</sub>R<sub>1-b</sub>, -S(=O)<sub>0-2</sub>, -NR<sub>1-a</sub>C=O NR<sub>1-a</sub>R<sub>1-b</sub>, -C=O NR<sub>1-a</sub>R<sub>1-b</sub>, and -S(=O)<sub>2</sub> NR<sub>1-a</sub>R<sub>1-b</sub>;

(II)  $-(C(Rc-x)(Rc-y))_{(0-4)}-Rc-cycle$  wherein each Rc-x and Rc-y is independently chosen selected from:

Η

 $C_1$  -  $C_6$  alkyl

 $C_1 - C_6$  alkoxy

 $C_2-C_6$  alkenyl or alkynyl

 $-(CH_2)_{0-4}-Rc$ -cycle where Rc-cycle is as defined below and or Rc-x and Rc-y may be taken together with the methylene carbon to which they jointly attach to form a spirocyclic ring of 3 to 7 atoms comprising carbon and up to 2 of O,  $S(O)_{(0-2)}$  and  $NR_{a'}$ , wherein is  $R_{a'}$  is H or  $C_{1-4}$  alkyl;

wherein the spirocyclic ring may be fused to another ring to provide a bicyclic ring system comprising carbon and up to 2 of 0,  $S(0)_{(0-2)}$  and  $NR_{a'}$ . and comprising up to 9 atoms in total including,

Rc-cycle is an aryl, heteroaryl, or cycloalkyl ring or a fusedring system consisting of no more than three rings where
each of the rings is the same or different and is an aryl,
heteroaryl, or cycloalkyl ring

wherein Rc-cycle is optionally substituted with up to four substituents independently selected from:

- (1)  $C_1-C_6$  alkyl optionally substituted with one, two or three substituents selected from the group consisting of  $C_1-C_3$  alkyl, halogen, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1-C_3$  alkoxy, and -NR $_{1-a}$ R $_{1-b}$ ,
- (2)  $C_2$ - $C_6$  alkenyl or alkynyl with one or two unsaturated bonds, optionally substituted with one, two or three

substituents selected from the group consisting of -F, -Cl, -OH, -SH, -C $\equiv$ N, -CF<sub>3</sub>, C<sub>1</sub>-C<sub>3</sub> alkoxy, and -NR<sub>1-a</sub>R<sub>1-b</sub>,

- (3) halogen,
- (4)  $C_1-C_6$  alkoxy,
- (5)  $-C_1-C_6$  alkoxy optionally substituted with one, two, or three of -F,
- (6)  $-NR_{N-6}R_{N-7}$  where  $R_{N-6}$  and  $R_{N-7}$  are the same or different and are selected from the group consisting of:
  - (a) -H,
- (b)  $-C_1-C_6$  alkyl optionally substituted with one substitutent selected from the group consisting of:
  - (i) -OH, and
  - (ii)  $-NH_2$ ,
- (c)  $-C_1-C_6$  alkyl optionally substituted with one to three -F, -Cl, -Br, or -I,
  - (d)  $-C_3-C_7$  cycloalkyl,
  - (e)  $-(C_1-C_2 \text{ alkyl})-(C_3-C_7 \text{ cycloalkyl})$ ,
  - (f)  $-(C_1-C_6 \text{ alkyl}) O (C_1-C_3 \text{ alkyl})$ ,
  - (g)  $-C_2-C_6$  alkenyl with one or two double bonds,
  - (h)  $-C_2-C_6$  alkynyl with one or two triple bonds,
- (i)  $-C_1-C_6$  alkyl chain with one double bond and one triple bond,
- (j)  $\underline{\text{aryl}}$   $-R_{1-\text{aryl}}$  where  $R_{1-\text{aryl}}$  is as defined above, and

- - (7) -OH,
  - (8) -C≡N,
- (9)  $C_3-C_7$  cycloalkyl, optionally substituted with one, two or three substituents selected from the group consisting of -F, -Cl, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1-C_3$  alkoxy, and -NR $_{1-a}$ R $_{1-b}$ ,
  - (10)  $-CO-(C_1-C_4 \text{ alkyl})$ ,
  - (11)  $-SO_2-NR_{1-a}R_{1-b}$ ,
  - (12)  $-CO-NR_{1-a}R_{1-b}$
  - (13)  $-SO_2 (C_1 C_4 \text{ alkyl})$ ,

and when there is a saturated carbon atom in Rc-cycle

- (14) oxo,
- (15) oxime
- (16) ketal rings of 5 to 7 members, and
- (17) a spirocyclic ring having from 3 to 7 atoms comprising carbon and when the ring size is 4-7 atoms optionally up to 2 of 0,  $S(0)_{(0-2)}$  and  $NR_{a'}$ . (IV)  $-(CR_{C-x}R_{C-y})_{0-4}$ -heteroaryl,
  - (III)  $-(CR_{C-x}R_{C-y})_{0-4}$ -aryl-aryl,
  - (IV)  $-(CR_{C-x}R_{C-y})_{0-4}$ -aryl-heteroaryl,
  - (V)  $-(CR_{C-x}R_{C-y})_{0-4}$  heteroaryl-aryl,
  - (VI)  $-(CR_{C-x}R_{C-y})_{0-4}$  heteroaryl-heteroaryl,
  - (VII)  $-(CR_{C-x}R_{C-y})_{0-4}$  aryl-heterocycle,
  - (VIII)  $-(CR_{C-x}R_{C-y})_{0-4}$ -heteroaryl-heterocycle,

- (IX)  $-(CR_{C-x}R_{C-y})_{0-4}$ -heterocycle-aryl,
- (X)  $-(CR_{C-x}R_{C-y})_{0-4}$ -heterocycle-heteroaryl,
- (XI)  $-(CR_{c-x}R_{c-y})_{0-4}$  heterocycle-heterocycle,
- (XII)  $-[C(R_{C-1})(R_{C-2})]_{1-3}-[CO]_{0-1}-N-(R_{C-3})_2$  where each  $R_{C-1}$  is the same or different and is selected from the group consisting of: H,  $C_{1-4}$  alkyl and  $C_{1-4}$  alkoxy, and where each  $R_{C-2}$  and  $R_{C-3}$  is independently selected from
- (A)  $-C_1-C_6$  alkyl, optionally substituted with one, two or three substituents selected from the group consisting of  $C_1-C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1-C_6$  alkoxy, -O-phenyl, and -NR $_{1-a}$ R $_{1-b}$ ,
- (B)  $C_2-C_6$  alkenyl or alkynyl with one or two unsaturated bonds, optionally substituted with one, two or three substituents selected from the group consisting of  $C_1-C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1-C_6$  alkoxy, -O- phenyl, and -NR $_{1-a}$ R $_{1-b}$ ,
  - (C)  $-(CH_2)_{1-2}-S(O)_{0-2}-(C_1-C_6 \text{ alkyl})$ ,
- (D)  $-(CH_2)_{0-4}-C_3-C_7$  cycloalkyl optionally substituted with one, two or three substituents selected from the group consisting of  $C_1-C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C $\equiv$ N, -CF<sub>3</sub>,  $C_1-C_6$  alkoxy, -O- phenyl, and -NR<sub>1-a</sub>R<sub>1-b</sub>,
- (E)  $-(CH_2)_{0-4}-5-7$  membered heterocycle optionally substituted with one, two or three substituents selected from

the group consisting of  $C_1-C_3$  alkyl, -F, -Cl, -Br, -I, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1-C_6$  alkoxy, -O- phenyl, oxo,  $\underline{and}$  -NR $_{1-a}$ R $_{1-b}$ ,

(XIII) -CH(aryl) $_2$  where each aryl is the same or different, (XIV) -CH(heteroaryl) $_2$  where each heteroaryl is the same or

different and are as defined above,

(XVIII) -CH(aryl) (heteroaryl);

wherein  $R_N$  is  $R'_{100}$ ,  $-(CRR')_{1-6}R'_{100}$ ,  $-(CRR')_{0-6}R_{100}$ ,  $-(CRR')_{1-6}-O-R'_{100}$ ,  $-(CRR')_{1-6}-S-R'_{100}$ ,  $-(CRR')_{1-6}-C(=O)-R_{100}$ ,  $-(CRR')_{1-6}-SO_2-R_{100}$ ,  $-(CRR')_{1-6}-NR_{100}-R'_{100}$  or  $-SO_2R'_{100}$ , with the proviso that when  $R_N$  is  $-SO_2R'_{100}$ , X is not  $-S(=O)_n-$  or -C(=S)-; wherein

R<sub>100</sub> and R'<sub>100</sub> <u>are</u> independently <del>represent</del> aryl, heteroaryl, -aryl-W-aryl, -aryl-W-heteroaryl, -aryl-W-heterocyclyl, -heteroaryl-W-aryl, -heteroaryl-W-heteroaryl, -heteroaryl-W-heterocyclyl, -heterocyclyl-W-aryl, -heterocyclyl-W-heterocyclyl-W-heterocyclyl, -CH[( $CH_2$ )<sub>0-2</sub>-O-R<sub>150</sub>]-( $CH_2$ )<sub>0-2</sub>-aryl, -CH[( $CH_2$ )<sub>0-2</sub>-O-R<sub>150</sub>]-( $CH_2$ )<sub>0-2</sub>-heterocyclyl or -CH[( $CH_2$ )<sub>0-2</sub>-O-R<sub>150</sub>]-( $CH_2$ )<sub>0-2</sub>-heteroaryl, where the ring portions of each are optionally substituted with 1, 2, or 3 groups independently selected from

-OR, -NO<sub>2</sub>, halogen, -C $\equiv$ N, -OCF<sub>3</sub>, -CF<sub>3</sub>, -(CH<sub>2</sub>)<sub>0-4</sub>-O- P(=O) (OR) (OR'), -(CH<sub>2</sub>)<sub>0-4</sub>-CO-NR<sub>105</sub>R'<sub>105</sub>, -(CH<sub>2</sub>)<sub>0-4</sub>-O-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub>0-4</sub>-CO-(CH<sub>2</sub>)<sub></sub>

- $R_{100}$  is  $C_1 C_{10}$  alkyl optionally substituted with 1, 2, or 3  $R_{115}$  groups, or
- $R_{100}$  is  $-(C_1-C_6 \text{ alkyl})-O-C_1-C_6 \text{ alkyl})$  or  $-(C_1-C_6 \text{ alkyl})-S-(C_1-C_6 \text{ alkyl})$ , each of which  $C_1-C_6 \text{ alkyl}$  is optionally substituted with 1, 2, or 3  $R_{115}$  groups, or
- $R_{100}$  is  $C_3-C_8$  cycloalkyl optionally substituted with 1, 2, or 3  $R_{115}$  groups;
- W is  $\frac{-(CH_2)_{0-4}}{-}$ , a bond,  $-(CH_2)_{1-4}$ , -O-,  $-S(O)_{0-2}$ ,  $-N(R_{135})$ , -CR(OH) or -C(O);
- $R_{102}$  and  $R_{102}$ ' independently are hydrogen, or

- $C_1-C_{10}$  alkyl optionally substituted with 1, 2, or 3 groups that are independently halogen, aryl or  $-R_{110}$ ;
- R<sub>105</sub> and R'<sub>105</sub> independently represent are -H, -R<sub>110</sub>, -R<sub>120</sub>, C<sub>3</sub>-C<sub>7</sub> cycloalkyl, -(C<sub>1</sub>-C<sub>2</sub> alkyl)-(C<sub>3</sub>-C<sub>7</sub> cycloalkyl), -(C<sub>1</sub>-C<sub>6</sub> alkyl)-O-(C<sub>1</sub>-C<sub>3</sub> alkyl), C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl,  $\Theta$  C<sub>1</sub>-C<sub>6</sub> alkyl chain with one double bond and one triple bond,  $\Theta$  C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with -OH or -NH<sub>2</sub> $\dot{\tau}_{,}$  or  $\dot{\tau}_{,}$  C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 1, 2, or 3 groups independently selected-from halogens, or
- $R_{105}$  and  $R'_{105}$  together with the atom to which they are attached form a 3 to 7 membered carbocylic ring, where one member is optionally a heteratom selected from -O-, -S(O) $_{0-2}$ -,  $N(R_{135})$ -, the ring being optionally substituted with 1, 2 or three  $R_{140}$  groups;

- R<sub>135</sub> is C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, C<sub>3</sub>-C<sub>7</sub> cycloalkyl,  $-(CH_2)_{0-2}-(aryl), -(CH_2)_{0-2}-(heteroaryl), or -(CH_2)_{0-2}-(heterocyclyl);$
- R<sub>140</sub> is heterocyclyl optionally substituted with 1, 2, 3, or 4 groups independently selected from C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, halogen, hydroxy, cyano, nitro, amino, mono(C<sub>1</sub>-C<sub>6</sub>) alkylamino, di(C<sub>1</sub>-C<sub>6</sub>) alkylamino, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkoxy, amino(C<sub>1</sub>-C<sub>6</sub>) alkyl, mono(C<sub>1</sub>-C<sub>6</sub>) alkylamino(C<sub>1</sub>-C<sub>6</sub>) alkyl, di(C<sub>1</sub>-C<sub>6</sub>) alkylamino(C<sub>1</sub>-C<sub>6</sub>) alkyl, and =O;
- $R_{150}$  is hydrogen,  $C_3$ - $C_7$  cycloalkyl,  $-(C_1$ - $C_2$  alkyl)- $(C_3$ - $C_7$  cycloalkyl),  $C_2$ - $C_6$  alkenyl,  $C_2$ - $C_6$  alkynyl,  $C_1$ - $C_6$  alkyl with one double bond and one triple bond,  $-R_{110}$ ,  $-R_{120}$ , or  $C_1$ - $C_6$  alkyl optionally substituted with 1, 2, 3, or 4 groups independently selected from -OH, -NH<sub>2</sub>,  $C_1$ - $C_3$  alkoxy,  $R_{110}$ , and halogen;
- $R_{150}'$  is  $C_3-C_7$  cycloalkyl,  $-(C_1-C_3 \text{ alkyl})-(C_3-C_7 \text{ cycloalkyl})$ ,  $C_2-C_6$  alkenyl,  $C_2-C_6$  alkynyl,  $C_1-C_6$  alkyl with one double bond and one triple bond,  $-R_{110}$ ,  $-R_{120}$ , or
  - $C_1-C_6$  alkyl optionally substituted with 1, 2, 3, or 4 groups independently selected from -OH, -NH<sub>2</sub>,  $C_1-C_3$  alkoxy,  $R_{110}$ , and halogen;

R<sub>180</sub> is selected from morpholinyl, thiomorpholinyl, piperazinyl, piperidinyl, homomorpholinyl, homothiomorpholinyl, homothiomorpholinyl S-oxide, homothiomorpholinyl S,S-dioxide, pyrrolinyl and pyrrolidinyl, each of which is optionally substituted with 1, 2, 3, or 4 groups independently selected from C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, halogen, hydroxy, cyano, nitro, amino, mono(C<sub>1</sub>-C<sub>6</sub>) alkylamino, di(C<sub>1</sub>-C<sub>6</sub>) alkylamino, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, C<sub>1</sub>-C<sub>6</sub> haloalkyl, C<sub>1</sub>-C<sub>6</sub> haloalkoxy, amino(C<sub>1</sub>-C<sub>6</sub>) alkyl, mono(C<sub>1</sub>-C<sub>6</sub>) alkylamino(C<sub>1</sub>-C<sub>6</sub>) alkylamino(C<sub>1</sub>-C<sub>6</sub>) alkylamino(C<sub>1</sub>-C<sub>6</sub>) alkylamino(C<sub>1</sub>-C<sub>6</sub>) alkylamino(C<sub>1</sub>-C<sub>6</sub>) alkyl, and =0;

 $R_{110}$  is aryl optionally substituted with 1 or 2  $R_{125}$  groups;  $R_{125}$  at each occurrence is independently halogen, amino, mono- or dialkylamino, -OH, -C $\equiv$ N, -SO<sub>2</sub>-NH<sub>2</sub>, -SO<sub>2</sub>-NH-C<sub>1</sub>-C<sub>6</sub> alkyl, -SO<sub>2</sub>-N(C<sub>1</sub>-C<sub>6</sub> alkyl)<sub>2</sub>, -SO<sub>2</sub>-(C<sub>1</sub>-C<sub>4</sub> alkyl), -CO-NH<sub>2</sub>, -CO-NH-C<sub>1</sub>-C<sub>6</sub> alkyl, or -CO-N(C<sub>1</sub>-C<sub>6</sub> alkyl)<sub>2</sub>, or

 $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkenyl or  $C_2$ - $C_6$  alkynyl, wherein each of which  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkenyl or  $C_2$ - $C_6$  alkynyl is optionally substituted with 1, 2, or 3 groups that are independently selected from  $C_1$ - $C_3$  alkyl, halogen, -OH, -SH, -C $\equiv$ N, -CF $_3$ ,  $C_1$ - $C_3$  alkoxy, amino, and mono- and dialkylamino, or

- $C_1$ - $C_6$  alkoxy optionally substituted with one, two or three  $\frac{1}{2}$  halogens;
- $R_{120}$  is heteroaryl, which is optionally substituted with 1 or 2  $R_{125}$  groups; and
- $R_{130}$  is heterocyclyl optionally substituted with 1 or 2  $R_{125}$  groups; and
- R<sub>2</sub> is selected from the group consisting of H; C<sub>1</sub>-C<sub>6</sub> alkyl<sub>7</sub> optionally substituted with 1, 2, or 3 substituents that are independently selected from the group consisting of C<sub>1</sub>-C<sub>3</sub> alkyl, halogen, -OH, -SH, -C $\equiv$ N, -CF<sub>3</sub>, C<sub>1</sub>-C<sub>3</sub> alkoxy, and -NR<sub>1</sub>- $_a$ R<sub>1-b</sub>; wherein R<sub>1-a</sub> and R<sub>1-b</sub> are -H or C<sub>1</sub>-C<sub>6</sub> alkyl; -(CH<sub>2</sub>)<sub>0-4</sub>-aryl; -(CH<sub>2</sub>)<sub>0-4</sub>-heteroaryl; C<sub>2</sub>-C<sub>6</sub> alkenyl; C<sub>2</sub>-C<sub>6</sub> alkynyl; -CONR<sub>N-2</sub>R<sub>N-3</sub>; -SO<sub>2</sub>NR<sub>N-2</sub>R<sub>N-3</sub>; -CO<sub>2</sub>H; and -CO<sub>2</sub>-(C<sub>1</sub>-C<sub>4</sub> alkyl);
- R<sub>3</sub> is selected from the group consisting of H; C<sub>1</sub>-C<sub>6</sub> alkyl<sub>7</sub> optionally substituted with 1, 2, or 3 substituents independently selected from the group consisting of C<sub>1</sub>-C<sub>3</sub> alkyl, halogen, -OH, -SH, -C $\equiv$ N, -CF<sub>3</sub>, C<sub>1</sub>-C<sub>3</sub> alkoxy, and -NR<sub>1-aR<sub>1-b</sub></sub>; -(CH<sub>2</sub>)<sub>0-4</sub>-aryl; -(CH<sub>2</sub>)<sub>0-4</sub>-heteroaryl; C<sub>2</sub>-C<sub>6</sub> alkenyl; C<sub>2</sub>-C<sub>6</sub> alkynyl; -CO-NR<sub>N-2</sub>R<sub>N-3</sub>; -SO<sub>2</sub>-NR<sub>N-2</sub>R<sub>N-3</sub>; -CO<sub>2</sub>H; and -CO-O-(C<sub>1</sub>-C<sub>4</sub> alkyl);

## wherein

 $R_{N-2}$  and  $R_{N-3}$  at each occurrence are independently selected from the group consisting of  $-C_1-C_8$  alkyl

optionally substituted with 1, 2, or 3 groups independently selected from the group consisting of - OH, -NH<sub>2</sub>, phenyl and halogen; -C<sub>3</sub>-C<sub>8</sub> cycloalkyl; -(C<sub>1</sub>-C<sub>2</sub> alkyl)-(C<sub>3</sub>-C<sub>8</sub> cycloalkyl); -(C<sub>1</sub>-C<sub>6</sub> alkyl)-O-(C<sub>1</sub>-C<sub>3</sub> alkyl); -C<sub>2</sub>-C<sub>6</sub> alkenyl; -C<sub>2</sub>-C<sub>6</sub> alkynyl; -C<sub>1</sub>-C<sub>6</sub> alkyl chain with one double bond and one triple bond; aryl; heteroaryl; and heterocycloalkyl; or

 $R_{N-2}$ ,  $R_{N-3}$  and the nitrogen to which they are attached form a 5, 6, or 7 membered heterocycloalkyl or heteroaryl group, wherein said heterocycloalkyl or heteroaryl group is optionally fused to a benzene, pyridine, or pyrimidine ring, and said groups are unsubstituted or substituted with 1, 2, 3, 4, or 5 groups that at each occurrence are independently  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy, halogen, halo  $C_1$ - $C_6$  alkyl, halo  $C_1$ - $C_6$  alkoxy, -CN, - $NO_2$ , - $NH_2$ ,  $NH(C_1$ - $C_6$  alkyl),  $N(C_1$ - $C_6$  alkyl)( $C_1$ - $C_6$  alkyl), -OH, - $C(O)NH_2$ , - $C(O)NH(C_1$ - $C_6$  alkyl), - $C(O)N(C_1$ - $C_6$  alkyl)( $C_1$ - $C_6$  alkyl),  $C_1$ - $C_6$  alkyl), - $C_1$ - $C_6$  alkyl); or

 $R_2$ ,  $R_3$  and the carbon to which they are attached form a carbocycle of three thru seven carbon atoms, wherein one carbon atom is optionally replaced by a group selected from -O-, -S-, -SO<sub>2</sub>-, or -NR<sub>N-2</sub>-.

## 2. (Canceled)

3. (Original) A compound according to claim 1 of the formula

or a pharmaceutically acceptable salt or ester thereof wherein R<sub>C</sub> is selected from -(CH<sub>2</sub>)<sub>0-3</sub>-(C<sub>3</sub>-C<sub>8</sub>) cycloalkyl wherein the cycloalkyl is optionally substituted with 1, 2, or 3 groups independently selected from -R<sub>205</sub>; and -CO<sub>2</sub>-(C<sub>1</sub>-C<sub>4</sub> alkyl); -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-aryl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-heteroaryl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-heterocycloalkyl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-aryl-heteroaryl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-aryl-heterocycloalkyl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-aryl-aryl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-heteroaryl-aryl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-heteroaryl-heterocycloalkyl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-heteroaryl; -CHR<sub>245</sub>-CHR<sub>250</sub>-aryl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-heterocycloalkyl-heteroaryl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-heterocycloalkyl-heteroaryl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-heterocycloalkyl-heterocycloalkyl; -(CR<sub>245</sub>R<sub>250</sub>)<sub>0-4</sub>-heterocycloalkyl-aryl; a monocyclic or bicyclic ring of 5, 6, 7 8, 9, or 10 carbons fused to 1 or 2 aryl, heteroaryl, or heterocycloalkyl groups;

wherein 1, 2 or 3 carbons of the monocyclic or bicyclic ring are optionally replaced with -NH-, -N(CO) $_{0-1}R_{215}$ -, -N(CO) $_{0-1}R_{220}$ -, -O-, or -S(=O) $_{0-2}$ -, and wherein the monocyclic or bicyclic

ring is optionally substituted with 1, 2 or 3 groups that are independently  $-R_{205}$ ,  $-R_{245}$ ,  $-R_{250}$  or =0; and  $-C_2-C_6$  alkenyl optionally substituted with 1, 2, or 3  $R_{205}$  groups;

wherein each aryl or heteroaryl group attached directly or indirectly to the  $-(CR_{245}R_{250})_{0-4}$  group is optionally substituted with 1, 2, 3 or 4  $R_{200}$  groups;

wherein each heterocycloalkyl attached directly or indirectly to the  $-(CR_{245}R_{250})_{0-4}$  group is optionally substituted with 1, 2, 3, or 4  $R_{210}$ ;

R200 at each occurrence is independently selected from  $-C_1-C_6 \text{ alkyl optionally substituted with 1, 2, or}$   $3 \text{ R}_{205} \text{ groups; } -\text{OH; } -\text{NO}_2; \text{ } -\text{halogen; } -\text{C}=\text{N; } -(\text{CH}_2)_{0-4}-\text{CO}-\text{CO}-\text{NR}_{220}\text{R}_{225}; \text{ } -(\text{CH}_2)_{0-4}-\text{CO}-(\text{C}_1-\text{C}_8 \text{ alkyl}); \text{ } -(\text{CH}_2)_{0-4}-\text{CO}-(\text{C}_2-\text{C}_8 \text{ alkynyl});$   $-(\text{CH}_2)_{0-4}-\text{CO}-(\text{C}_3-\text{C}_7 \text{ cycloalkyl}); \text{ } -(\text{CH}_2)_{0-4}-(\text{CO})_{0-1}-\text{aryl; } -(\text{CH}_2)_{0-4}-(\text{CO})_{0-1}-\text{heteroaryl; } -(\text{CH}_2)_{0-4}-(\text{CO})_{0-1}-\text{heterocycloalkyl; } -(\text{CH}_2)_{0-4}-\text{CO}_2\text{R}_{215}; \text{ } -(\text{CH}_2)_{0-4}-\text{SO}_2-\text{NR}_{220}\text{R}_{225}; \text{ } -(\text{CH}_2)_{0-4}-\text{S}(\text{O})_{0-2}-(\text{C}_1-\text{C}_8 \text{ alkyl}); \text{ } -(\text{CH}_2)_{0-4}-\text{S}(\text{O})_{0-2}-\text{C}_2\text{C}_2\text{C}_2+\text{N}(\text{H or R}_{215})-\text{CO}_2\text{R}_{215}; \text{ } -(\text{CH}_2)_{0-4}-\text{N}(\text{H or R}_{215})-\text{CO}_2\text{R}_{215}; \text{ } -(\text{CH}_2)_{0-4}-\text{N}(\text{H or R}_{215})-\text{CO}_2\text{R}_{220}; \text{ } -(\text{CH}_2)_{0-4}-\text{N}(\text{CH}_2)_{$ 

 $C_6$  alkyl optionally substituted with 1, 2, 3, or 5 -F);  $-C_2-C_6$  alkenyl optionally substituted with 1 or 2  $R_{205}$  groups;  $-C_2-C_6$  alkynyl optionally substituted with 1 or 2  $R_{205}$  groups; adamantly, and  $-(CH_2)_{0-4}-C_3-C_7$  cycloalkyl;

each aryl and heteroaryl group included within  $R_{200}$  is optionally substituted with 1, 2, or 3 groups that are independently  $-R_{205}$ ,  $-R_{210}$  or  $-C_1-C_6$  alkyl substituted with 1, 2, or 3 groups that are independently  $R_{205}$  or  $R_{210}$ ;

each heterocycloalkyl group included within  $R_{200}$  is optionally substituted with 1, 2, or 3 groups that are independently  $R_{210}$ ;

R<sub>205</sub> at each occurrence is independently selected from  $-C_1-C_6 \text{ alkyl, } -C_2-C_6 \text{ alkenyl, } -C_2-C_6 \text{ alkynyl, } -C_1-C_6$   $\text{haloalkoxy, } -(\text{CH}_2)_{0-3}\left(C_3-C_7 \text{ cycloalkyl}\right), \text{ -halogen, }$   $-(\text{CH}_2)_{0-6}-\text{OH, } -\text{O-phenyl, OH, SH, } -(\text{CH}_2)_{0-6}-\text{C}\equiv\text{N, }$   $-(\text{CH}_2)_{0-6}-\text{C}\left(=\text{O}\right)\text{NR}_{235}\text{R}_{240}, \text{ -CF}_3, \text{ -C}_1-\text{C}_6 \text{ alkoxy, } \text{C}_1-\text{C}_6$   $\text{alkoxycarbonyl, and } -\text{NR}_{235}\text{R}_{240};$ 

 $R_{210}$  at each occurrence is independently selected from  $-C_1-C_6$  alkyl optionally substituted with 1, 2, or  $R_{205}$  groups;  $-C_2-C_6$  alkenyl optionally substituted with 1, 2, or  $R_{205}$  groups;  $R_{205}$  groups;  $R_{205}$  groups;  $R_{205}$  groups;  $R_{205}$  groups;  $R_{205}$  alkanoyl;  $R_{205}$  groups;  $R_{205}$  groups;  $R_{205}$  alkynyl

optionally substituted with 1, 2, or 3  $R_{205}$  groups; -halogen;  $-C_1-C_6$  alkoxy;  $-C_1-C_6$  haloalkoxy;  $-NR_{220}R_{225}$ ; -OH;  $-C\equiv N$ ;  $-C_3-C_7$  cycloalkyl optionally substituted with 1, 2, or 3  $R_{205}$  groups;  $-CO-(C_1-C_4$  alkyl);  $-SO_2-NR_{235}R_{240}$ ;  $-CO-NR_{235}R_{240}$ ;  $-SO_2-(C_1-C_4$  alkyl); and =O;

R<sub>215</sub> at each occurrence is independently selected from  $-C_1-C_6$  alkyl,  $-(CH_2)_{0-2}-(aryl)$ ,  $-C_2-C_6$  alkenyl,  $--C_2-C_6$  alkenyl,  $-C_3-C_7$  cycloalkyl,  $-(CH_2)_{0-2}-(CH_2)_{$ 

R<sub>220</sub> at each occurrence is independently H,  $-C_1-C_6$  alkyl, - CHO, hydroxy  $C_1-C_6$  alkyl,  $C_1-C_6$  alkoxycarbonyl, - amino  $C_1-C_6$  alkyl,  $-SO_2-C_1-C_6$  alkyl,  $C_1-C_6$  alkanoyl optionally substituted with up to three halogens,  $-C(O)NH_2$ ,  $-C(O)NH(C_1-C_6$  alkyl),  $-C(O)N(C_1-C_6$  alkyl) ( $C_1-C_6$  alkyl),  $-halo C_1-C_6$  alkyl,  $-(CH_2)_{O-2}-(C_3-C_7$  cycloalkyl),  $-(C_1-C_6$  alkyl)- $-(C_1-C_6$  alkyl),  $-halo C_1-C_6$  alkyl),  $-(C_1-C_6)$  alkyl),  $-(C_2-C_6)$  alkyl),  $-(C_1-C_6)$  alkyl),  $-(C_1-C_6)$ 

or -heterocycloalkyl; wherein the aryl, heteroaryl and heterocycloalkyl groups included within  $R_{220}$  and  $R_{225}$  is optionally substituted with 1, 2, or 3  $R_{270}$  groups,

R<sub>270</sub> at each occurrence is independently -R<sub>205</sub>, -C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with 1, 2, or 3 R<sub>205</sub> groups; -C<sub>2</sub>-C<sub>6</sub> alkenyl optionally substituted with 1, 2, or 3 R<sub>205</sub> groups; -C<sub>2</sub>-C<sub>6</sub> alkynyl optionally substituted with 1, 2, or 3 R<sub>205</sub> groups; -phenyl; -halogen; -C<sub>1</sub>-C<sub>6</sub> alkoxy; -C<sub>1</sub>-C<sub>6</sub> haloalkoxy; -NR<sub>235</sub>R<sub>240</sub>; -OH; -C≡N; -C<sub>3</sub>-C<sub>7</sub> cycloalkyl optionally substituted with 1, 2, or 3 R<sub>205</sub> groups; -CO-(C<sub>1</sub>-C<sub>4</sub> alkyl); -SO<sub>2</sub>-NR<sub>235</sub>R<sub>240</sub>; -CO-NR<sub>235</sub>R<sub>240</sub>; -SO<sub>2</sub>-(C<sub>1</sub>-C<sub>4</sub> alkyl); and =O;

 $R_{235}$  and  $R_{240}$  at each occurrence are independently -H, -C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkanoyl, -SO<sub>2</sub>-(C<sub>1</sub>-C<sub>6</sub> alkyl), or -phenyl;

R<sub>245</sub> and R<sub>250</sub> at each occurrence are independently selected from H,  $-(CH_2)_{0-4}CO_2C_1-C_4 \text{ alkyl, } -(CH_2)_{0-4}C(=0)C_1-C_4 \text{ alkyl, } -C_1-C_4 \text{ alkyl, } \\ -C_1-C_4 \text{ hydroxyalkyl, } -C_1-C_4 \text{ alkoxy, } -C_1-C_4 \text{ haloalkoxy, } -(CH_2)_{0-4}\\ -C_3-C_7 \text{ cycloalkyl, } -C_2-C_6 \text{ alkenyl, } -C_2-C_6 \text{ alkynyl, } -(CH_2)_{0-4}\\ \text{aryl, } -(CH_2)_{0-4} \text{ heteroaryl, and } -(CH_2)_{0-4} \text{ heterocycloalkyl, or } -(CH_2)_{0-$ 

R<sub>245</sub> and R<sub>250</sub> are taken together with the carbon to which they are attached to form a monocycle or bicycle of 3, 4, 5, 6, 7 or 8 carbon atoms, where 1, 2, or 3 carbon atoms are optionally replaced by 1, 2, or 3 gropus that are independently -0-, - S-,  $-SO_2-$ , -C(O)-,  $-NR_{220}-$ , or  $-NR_{220}R_{220}-$  wherein both R<sub>220</sub> groups are alkyl; and wherein the ring is optionally substituted with 1, 2, 3, 4, 5, or 6 groups that are independently  $C_1-C_4$  alkyl,  $C_1-C_4$  alkoxy, hydroxyl,  $NH_2$ ,  $NH(C_1-C_6$  alkyl),  $N(C_1-C_6$  alkyl),  $N(C_1-C_6$  alkyl),  $N(C_1-C_6$  alkyl),  $NH_2$ ,  $NH_2$ ,  $NH_3$ 

wherein the aryl, heteroaryl or heterocycloalkyl groups included within  $R_{245}$  and  $R_{250}$  are optionally substituted with 1, 2, or 3 groups that are independenly halogen,  $C_{1-6}$  alkyl, CN or OH.

4. (Original) A compound according to claim 3, wherein  $R_1$  is  $C_1$ - $C_{10}$  alkyl optionally substituted with 1 or 2 groups independently selected from halogen, -OH, =O, -CN, -CF<sub>3</sub>, -OCF<sub>3</sub>, -C<sub>3</sub>-C<sub>7</sub> cycloalkyl, -C<sub>1</sub>-C<sub>4</sub> alkoxy, amino, monodialkylamino, aryl, heteroaryl or heterocycloalkyl, wherein the aryl group is optionally substituted with 1 or 2  $R_{50}$  groups;

- $R_{50}$  is halogen, OH, CN, -CO-( $C_1$ - $C_4$  alkyl), -NR $_7$ R $_8$ ,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkenyl,  $C_2$ - $C_6$  alkynyl,  $C_1$ - $C_6$  alkoxy, and  $C_3$ - $C_8$  cycloalkyl;
  - $R_7$  and  $R_8$  are selected from H;  $-C_1-C_4$  alkyl optionally substituted with 1, 2, or 3 groups selected from -OH,  $-NH_2$  and halogen;  $-C_3-C_6$  cycloalkyl;  $-(C_1-C_4$  alkyl) $-O-(C_1-C_4$  alkyl);  $-C_2-C_4$  alkenyl; and  $-C_2-C_4$  alkynyl;
- $R_{\rm C}$  is selected from  $-(CR_{245}R_{250})_{0-4}$ -aryl;  $-(CR_{245}R_{250})_{0-4}$ -heteroaryl;  $-(CR_{245}R_{250})_{0-4}$ -heterocycloalkyl; where the aryl and heteroaryl groups attached to the  $-(CR_{245}R_{250})_{0-4}$  group are optionally substituted with 1, 2, 3 or 4  $R_{200}$  groups; where the heterocycloalkyl group attached to the  $-(CR_{245}R_{250})_{0-4}$  group is optionally substituted with 1, 2, 3, or 4  $R_{210}$  groups; and  $R_{245}$   $R_{250}$ ,  $R_{200}$ , and  $R_{210}$  are as defined above.
- 5. (Original) A compound according to claim4, wherein  $R_{C}$  is  $-(CR_{245}R_{250})_{0-4}$ -heterocycloalkyl; where the heterocycloalkyl group attached to the  $-(CR_{245}R_{250})_{0-4}$  group is optionally substituted with 1, 2, 3, or 4  $R_{210}$  groups, wherein  $R_{245}$ ,  $R_{250}$ , and  $R_{210}$  are as defined above.
  - 6 (Original) A compound according to claim 5, wherein

 $R_1$  is  $C_1-C_{10}$  alkyl substituted with one aryl group, where the aryl group is optionally substituted with 1 or 2  $R_{50}$  groups;  $R_C \text{ is } -(CR_{245}R_{250})_{1-4}\text{-aryl or } -(CR_{245}R_{250})_{1-4}\text{-heteroaryl},$ 

 $R_{245}$  and  $R_{250}$  are independently selected from H,  $-(CH_2)_{0-4}CO_2C_1 C_4$  alkyl,  $-(CH_2)_{0-4}CO_2H$ ,  $-C_1-C_4$  alkyl,  $-(C_1-C_4$  alkyl)OH, or

 $R_{245}$ ,  $R_{250}$  and the carbon to which they are attached form a monocycle or bicycle of 3, 4, 5, 6, 7 or 8 carbon atoms, where 1 or 2 carbon atoms are optionally replaced by -O-, -S-, -SO<sub>2</sub>-, or -NR<sub>220</sub>-, where  $R_{220}$  is as defined above; and

wherein the aryl and heteroaryl groups attached to the  $-(CR_{245}R_{250})_{1\text{-}4}\text{-}\text{ groups are optionally substituted with 1}$  or 2  $R_{200}$  groups.

7. (Original) A compound according to claim 3, wherein  $R_{\text{C}}$  is  $(CR_{245}R_{250})_1$ -aryl, where the aryl (preferably phenyl or naphthyl, more preferably phenyl) is optionally substituted with 1, 2, or 3  $R_{200}$  groups; and

 $R_{245}$  is H and  $R_{250}$  is H or  $C_1$ - $C_6$  alkyl; or

 $R_{245}$  and  $R_{250}$  are independently  $C_1 - C_3$  alkyl (preferably both are methyl); or

 $CR_{245}R_{250}$  represents a  $C_3-C_7$  cycloalkyl group.

8. (Original) A compound according to claim 7, wherein

- the  $(CR_{245}R_{250})_1$ -aryl is  $(CR_{245}R_{250})_1$ -phenyl where the phenyl is optionally substituted with 1, 2, or 3  $R_{200}$  groups.
- 9. (Original) A compound according to claim 8, wherein the phenyl in  $(CR_{245}R_{250})_1$ -phenyl is substituted with 1-3 independently selected  $R_{200}$  groups, or 1 or 2 independently selected  $R_{200}$  groups, and 1 heteroaryl group optionally substituted with 1  $R_{200}$  group or 1 phenyl group optionally substituted with 1  $R_{200}$  group.
- 10. (Original) A compound according to claim 8, wherein  $R_{245}$  is hydrogen and  $R_{250}$  is  $C_1-C_3$  alkyl.
- 11. (Original) A compound according to claim 8, wherein  $R_{245}$  and  $R_{250}$  are both hydrogen.
- 12. (Currently amended) A compound according to claim 8, wherein the phenyl in  $(CR_{245}R_{250})_1$ -phenyl is substituted with
- (a) 1  $R_{200}$  group and 1 heteroaryl group, wherein the heteroaryl is optionally substituted with 1  $R_{200}$  group; or
- (b) 1  $R_{200}$  group and 1 phenyl group, wherein the 1 phenyl group is optionally substituted with 1  $R_{200}$  group; or

- (c) 1  $R_{200}$  group, and 1 heterocycloalkyl group which wherein the heterocycloalkyl group is optionally substituted with one 1  $R_{200}$  group or =0.
- 13. (Original) A compound according to claim 12, wherein  $CR_{245}R_{250}$  represents a  $C_3-C_7$  cycloalkyl group.
- 14. (Original) A compound according to claim 12, wherein  $CR_{245}R_{250}$  represents a  $C_5-C_7$  cycloalkyl group.
- 15. (Original) A compound according to claim 12, wherein  $CR_{245}R_{250}$  represents a  $C_3-C_6$  cycloalkyl group.
- 16. (Original) A compound according to claim 12, wherein  $CR_{245}R_{250}$  represents a  $C_6$  cycloalkyl.
- 17. (Currently amended) A compound according to claim 8, wherein the phenyl in  $(CR_{245}R_{250})_1$ -phenyl is substituted with
  - 1 R<sub>200</sub> group; or
  - 1  $R_{200}$  group and one heteroaryl group wherein the heteroaryl group is optionally substituted with  $\frac{1}{1000}$ 
    - 1 R<sub>200</sub> group or
    - 1  $R_{200}$  group and  $\frac{1}{2}$  phenyl group wherein the 1

phenyl group is optionally substituted with one  $R_{200}$  group.

- 18. (Original) A compound according to claim 8, wherein the phenyl in  $(CR_{245}R_{250})_1$ -phenyl is substituted with 1  $R_{200}$  group.
- 19. (Currently amended) A compound selected from the group consisting of:

phenyl ((1s,2R)-1-(3,5-difluorobenzyl)-3-{[(1s)-7ethyl-1,2,3,4-tetrahydronaphthalen-1-yl]amino}-2hydroxypropyl)carbamate;

methyl (3S) -3-{[(2R,3S) -3-[(anilinocarbonyl)amino]-4-(3,5-difluorophenyl)-2-hydroxybutyl]amino}-3-(3-bromophenyl)propanoate;

 $N-((1S,2R)-1-(3,5-difluorobenzyl)-3-\{[4-(3-ethylphenyl)tetrahydro-2H-pyran-4-yl]amino}-2-hydroxypropyl)-N'-phenylurea;$ 

N-((1S,2R)-1-(3,5-difluorobenzyl)-3-{[(4R)-6-ethyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl]amino}-2-hydroxypropyl)methanesulfonamide;

N-benzyl-N'-((1S,2R)-1-(3,5-difluorobenzyl)-3-{[(4R)-6-ethyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl]amino}-2-hydroxypropyl)urea;

 $N-((1S,2R)-1-(3,5-difluorobenzyl)-3-\{[(4R)-6-ethyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl]amino}-2-hydroxypropyl)-N'-phenylurea;$ 

 $N-((1S,2R)-1-(3,5-\text{difluorobenzyl})-3-\{[(4R)-6-\text{ethyl-}2,2-\text{dioxido}-3,4-\text{dihydro}-1H-\text{isothiochromen}-4-\text{yl}] amino}-2-$ hydroxypropyl)-N'-propylurea;

N-(sec-butyl)-N'-((1S,2R)-1-(3,5-difluorobenzyl)-3- { [(4R)-6-ethyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl]amino}-2-hydroxypropyl)urea;

phenyl ((1s,2R)-1-(3,5-difluorobenzyl)-3-{[(4R)-6ethyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4yl]amino)-2-hydroxypropyl)carbamate;

ethyl ((1s,2R)-1-(3,5-difluorobenzyl)-3-([(4R)-6-ethyl-2,2-dioxido-3,4-dihydro-1H-isothiochromen-4-yl]amino)-2-hydroxypropyl)carbamate;

 $N-\{(1S,2R)-1-(3,5-\text{difluorobenzyl})-3-[(6-\text{ethyl}-3,4-\text{dihydro}-2H-\text{chromen}-4-yl)\ amino]-2-\text{hydroxypropyl}\}-N'-$  phenylurea;

 $N=\{(1S,2R)-1-(3,5-\text{difluorobenzyl})-2-\text{hydroxy}-3-[(6-\text{isopropyl}-3,4-\text{dihydro}-2H-\text{chromen}-4-\text{yl}) \text{ amino} \}$  propyl $\}-N'-$  phenylurea;

 $N-[(1S,2R)-1-(3,5-difluorobenzyl)-3-(\{6-(dimethylamino)methyl]-3,4-dihydro-2H-chromen-4-yl}amino)-$ 

2-hydroxypropyl]-N'-phenylurea; phenyl (-(1S, 2R)-1-(3, 5-difluorobenzyl)-3-(6-ethyl-3,4-dihydro-2H-chromen-4-yl)amino]-2hydroxypropyl } carbamate; phenyl {(1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(6-isopropyl-3,4-dihydro-2H-chromen-4yl)amino]propyl]carbamate; phenyl  $[(1S, 2R) - 1 - (3, 5 - diffluorobenzyl) - 3 - (\{6 - (3, 5 - diffluorobenzyl) - 3 - (\{6 - (3, 5 - diffluorobenzyl) - (\{6 -$ [(dimethylamino)methyl]-3,4-dihydro-2H-chromen-4-yl)amino)-2-hydroxypropyl-]carbamate;  $N-\{(1S, 2R)-1-(3, 5-\text{difluorobenzyl})-3-[(6-\text{ethyl}-3, 4$ dihydro-1H-isochromen-4-y1) amino]-2-hydroxypropy1}-N'phenylurea;  $N-\{(1S, 2R)-1-(3, 5-difluorobenzyl)-2-hydroxy-3-[(6-1)]$ isopropyl-3,4-dihydro-1H-isochromen-4-yl)amino]propyl}-N'phenylurea;  $N-[(1S, 2R)-1-(3, 5-difluorobenzyl)-3-({6-}$ [(dimethylamino)methyl]-3,4-dihydro-1H-isochromen-4yl}amino)-2-hydroxypropyl]-N'-phenylurea; phenyl  $\{(1S, 2R)-1-(3, 5-difluorobenzyl)-3-[(6-ethyl-$ 

phenyl ((1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-

3,4-dihydro-1H-isochromen-4-yl)amino]-2-

hydroxypropyl carbamate;

[(6-isopropyl-3,4-dihydro-1H-isochromen-4vl)amino]propyl)carbamate;

phenyl [(1S,2R)-1-(3,5-difluorobenzyl)-3-({6[(dimethylamino)methyl]-3,4-dihydro-1H-isochromen-4yl}amino)-2-hydroxypropyl]carbamate;

 $N^3$ -[({(1S,2R)-1-(3,5-difluorobenzyl)-2-hydroxy-3-[(3-methoxybenzyl)amino]propyl}amino)carbonyl]- $N^1$ ,  $N^1$ -dipropyl-b-alaninamide; and

 $2-\{[(\{(1S,2R)-1-(3,5-\text{difluorobenzyl})-2-\text{hydroxy}-3-[(3-\text{methoxybenzyl})\,\text{amino}]\,\text{propyl}\}\,\text{amino})\,\text{carbonyl}]\,\text{amino}\}-N,\,N-$  dipropylethanesulfonamide.

- 20. (Canceled)
- 21. (Currently amended) A compound which has the formula:

or

or

or a pharmaceutically acceptable salt thereof.

22. (Withdrawn) A method of treating a patient who has, or in preventing a patient from getting, a disease or condition selected from the group consisting of Alzheimer's disease, for helping prevent or delay the onset of Alzheimer's disease, for treating patients with mild cognitive impairment (MCI) and preventing or delaying the onset of Alzheimer's disease in those who would progress from MCI to AD, for treating Down's syndrome, for treating humans who have Hereditary Cerebral Hemorrhage with Amyloidosis of the Dutch-Type, for treating cerebral amyloid angiopathy and preventing its potential consequences, i.e. single and recurrent lobar hemorrhages, for treating other

degenerative dementias, including dementias of mixed vascular and degenerative origin, dementia associated with Parkinson's disease, dementia associated with progressive supranuclear palsy, dementia associated with cortical basal degeneration, diffuse Lewy body type of Alzheimer's disease and who is in need of such treatment which comprises administration of a therapeutically effective amount of a compound selected from the group consisting of a substituted aminoalcohol of the formula (I), or a pharmaceutically acceptable salt or ester thereof, wherein X, T,  $R_{20}$ ,  $R_{1}$ ,  $R_{2}$ ,  $R_{3}$ ,  $R_{N}$  and  $R_{C}$  are as defined in claim 1.

## 23. (Canceled)

24. (New) The compound according to claim 1 that is 3-(3-(25,3R)-1-(3,5-difluorophenyl)-4-(1-(3-ethylphenyl)butylamino)-3-hydroxybutan-2-yl)ureido)-N,N-dipropylpropanamide.